

Claims

[c1] What is claimed is:

An apparatus for clamping a reference surface of an object to a reference surface of a support member, comprising:

at least one clamping member having means for applying compressive force between a first contact surface and a second contact surface, said first contact surface being in contact with a support surface of said support member, said support surface of said support member being opposite said reference surface of said support member;

each of said clamping members having a base member with said second contact surface in contact with a support surface of said object, said support surface of said object being opposite said reference surface of said object;

each of said clamping members having a tension member for applying tension to said base member, said tension member being adapted to maintain a tensile force and having a cross section such that said tension member exerts transverse force on said object less than a threshold amount.

[c2] An apparatus according to claim 1, in which said means for applying compressive force is a spring.

[c3] An apparatus according to claim 1, further comprising release means for releasing compressive force.

- [c4] An apparatus according to claim 3, in which said release means comprises a lever pressing against said means for applying compressive force.
- [c5] An apparatus according to claim 1, in which support means support the object when the compressive force is released.
- [c6] An apparatus according to claim 2, in which support means support the object when the compressive force is released.
- [c7] An apparatus according to claim 1, in which said tension member is a shaft having a broader diameter at the top and bottom and a smaller diameter in a central area.
- [c8] An apparatus according to claim 2, in which said tension member is a shaft having a broader diameter at the top and bottom and a smaller diameter in a central area.
- [c9] An apparatus according to claim 3, in which said tension member is a shaft having a broader diameter at the top and bottom and a smaller diameter in a central area.
- [c10] An apparatus according to claim 4, in which said tension member is a shaft having a broader diameter at the top and bottom and a smaller diameter in a central area.
- [c11] An apparatus for clamping a reference surface of an object to a reference surface of a support member in a vacuum, comprising:

at least one clamping member having means for applying compressive force between a first contact surface and a second contact surface, said first contact surface being in contact with a support surface of said support member, said support surface of said support member being opposite said reference surface of said support member;

each of said clamping members having a base member with said second contact surface in contact with a support surface of said object, said support surface of said object being opposite said reference surface of said object, such that said base member supports said object when clamped;

each of said clamping members having a tension member for applying tension to said base member, said tension member being adapted to maintain a tensile force and having a cross section such that said tension member exerts transverse force on said object less than a threshold amount; and

release means for releasing tension in said tension member, whereby said base member moves away from said support member, thereby opening a gap between said object and said support member.

- [c12] An apparatus according to claim 11, in which said means for applying compressive force is a spring.
- [c13] An apparatus according to claim 11, further comprising release means for releasing compressive force.

- [c14] An apparatus according to claim 13, in which said release means comprises a lever pressing against said means for applying compressive force.
- [c15] An apparatus according to claim 11, in which support means supports the object when the compressive force is released.
- [c16] An apparatus according to claim 12, in which support means supports the object when the compressive force is released.
- [c17] An apparatus according to claim 11, in which said tension member is a shaft having a broader diameter at the top and bottom and a smaller diameter in a central area.
- [c18] An apparatus according to claim 12, in which said tension member is a shaft having a broader diameter at the top and bottom and a smaller diameter in a central area.
- [c19] An apparatus according to claim 13, in which said tension member is a shaft having a broader diameter at the top and bottom and a smaller diameter in a central area.
- [c20] An apparatus according to claim 14, in which said tension member is a shaft having a broader diameter at the top and bottom and a smaller diameter in a central area